

## A Chance and data: Scatter plots and line of best fit

Skill 9.7

The following information relates the length of silver chain (cm) to its value (\$) – this jewellery includes a silver locket.

- Plot the data on a scatter plot and find the equation of the line of best fit.
- How much is the locket worth on its own?
- How much is this jewellery worth if the chain is 60 cm long?

Length (cm)	Value (\$)
70	50
23	30
10	25
50	40
30	35
5	22

## B Chance and data: Probability of single and complementary events

Skill 9.8

Disks with the following numbers are placed in a bag

(1, 2, 2, 3, 3, 3, 4, 4, 5, 5, 5, 5)

- Find the probability of selecting an even numbered disk.
- Find the probability of selecting an odd numbered disk.
- Show that events 1 and 2 above are complementary.
- Find the probability of choosing a number greater than 3.
- Find the probability of choosing a number less than 4 or divisible by 5.

## C Chance and data: Displaying sample spaces

Skill 9.9

One bag contains red counters numbered 1 to 7 and another bag contains blue counters numbered 8 to 12. List the sample space of choosing:

- One disk from each bag.
- One disk from the first bag, it being replaced and another disk selected from the same bag.

## D Calculators: Fractions

Skill 10.4

Calculate:

- $\frac{2}{5} + \frac{1}{6} + \frac{2}{7} + \frac{5}{8}$
- $6\frac{1}{4} \times 2\frac{1}{3} \times 1\frac{1}{5} \times 2\frac{1}{6}$
- $3\frac{1}{8} \left( 4\frac{1}{3} + 2\frac{1}{2} - 6\frac{1}{4} \right)$
- $\frac{2\frac{1}{2} + 5\frac{1}{4}}{\frac{1}{2}} + \frac{3}{8}$
- $9\frac{2}{3} \left( 5\frac{1}{4} - 6\frac{1}{2} + 12\frac{1}{8} \right)$
- $3\frac{1}{4} \div 2\frac{1}{5} \times 5\frac{1}{4}$
- $\frac{6\frac{2}{3} \div 8\frac{1}{4} - \frac{5}{7}}{\frac{2}{3}}$
- $13\frac{1}{2} \left( 1\frac{1}{2} - 6\frac{1}{4} + 11\frac{1}{4} \right)$
- $\frac{5\frac{1}{4} + 3\frac{1}{8} + 6\frac{1}{3}}{3\frac{1}{9}} - 17\frac{1}{2}$
- $3\frac{2}{3} + 5\frac{1}{4} + 6\frac{2}{3} \times \frac{3}{4}$

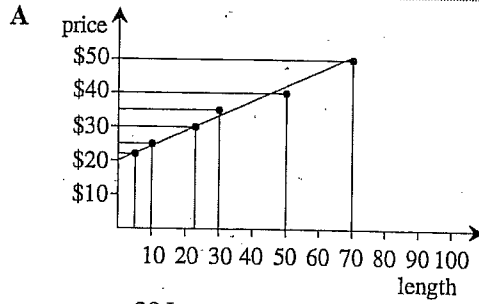
## E Calculators: Using the memory function

Skill 10.5

Calculate to 2 decimal places:

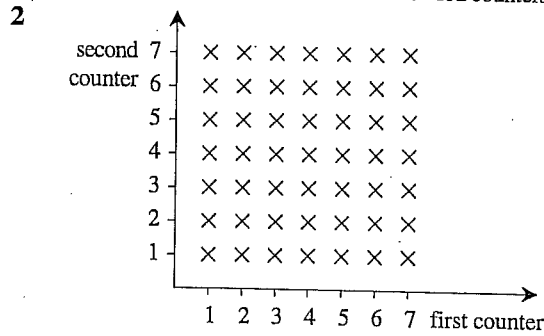
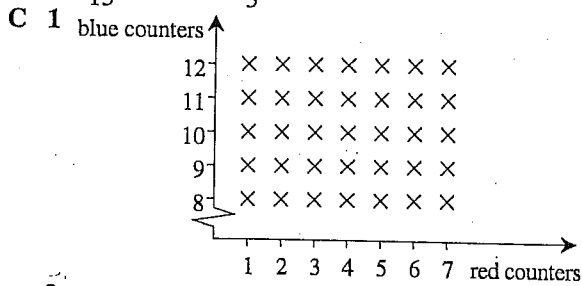
- $13.02 \times \pi + 6.04 \times 3.09$
- $14(3.8 + 6.3) + \frac{2}{\pi}$
- $14.07^2 + 3 \times 0.09 - 6.03 \times 1.04$
- $33.2^2 - 2.04 \times 3 + \frac{6.09}{8}$
- $\sqrt{1.02 + 5.8} + 6.09 \times 3$
- $3\pi + 2(5.02 + 3.8)$
- $\pi(3 + \sqrt{2})$
- $\frac{4\pi(3.08 + 15.2)}{3.09}$
- $\frac{15.02}{3.1} + \frac{\pi}{3} - 11.2$
- $\frac{18(4\pi + 3 - 2)}{\sqrt{2}}$

# Worksheet 38



1  $V = \frac{20L}{43} + 20$     2 \$20    3 \$47.90

B 1  $\frac{4}{13}$     2  $\frac{9}{13}$     3 Since  $\frac{4}{13} + \frac{9}{13} = 1$   
 4  $\frac{7}{13}$     5  $\frac{11}{3}$



D 1  $1\frac{401}{840}$     2  $37\frac{11}{12}$     3  $1\frac{79}{96}$   
 4  $15\frac{7}{8}$     5  $105\frac{1}{8}$     6  $7\frac{133}{176}$   
 7  $-3\frac{25}{56}$     8  $87\frac{3}{4}$     9  $-12\frac{173}{224}$   
 10  $13\frac{11}{12}$

E 1 59.57    2 142.04    3 191.96  
 4 1096.88    5 20.88    6 27.06  
 7 13.87    8 74.34    9 -5.31  
 10 172.67